



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 317,986	05 25 1999	HIDENORI YAMANAKA	Q54509	9754

7590 03 21 2003

SUGHRUE MION ZINN MACPEAK & SEAS PLLC
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 200373202

EXAMINER

PRATT, CHRISTOPHER C

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 03/21/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/317,986

Applicant(s)

YAMANAKA ET AL.

Examiner

Christopher C Pratt

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b)

Status

- 1) ☐ Responsive to communication(s) filed on 11/12/02.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1,6,8 and 10-21 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,6,8,10 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 22
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1771

DETAILED ACTION

Response to Amendment

1. Applicant's remarks filed 11/12/02 have been entered and carefully considered. The 102 rejection over Fukata is withdrawn because it does not appear to be describing a meltblowing process. Ikeda has also been withdrawn from the rejection because it teaches the use of linear polymers. Despite this advance, Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 6, 8, 18, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims are indefinite because they recite the phrase "nonwoven fabric having an average diameter of 10 micrometers." Is applicant referring to the thickness of the fabric of the size of the individual fibers, which comprise the fabric? If applicant is referring to the individual fiber size then the claims must be amended to clearly reflect this embodiment.

Art Unit: 1771

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 18, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292) or Auerbach (EP 709499) each in view of Fukata (4454189), as set forth in the previous action.

In response to applicant's amendment, Auerbach teaches a melt blown web having fibers of .5-7 micrometers. Harwood teaches a melt blown web having fibers of 1 to 12 micrometers (abstract and col. 7, line 60).

Applicant argues that Harwood and Auerbach are silent with respect to the non-Newtonian coefficient. Fukata is used in the combination rejection to teach this limitation. Applicant argues that Fukata's range of .9-2 does not teach applicant's claimed range because it is a "very large range of polymer flow of almost all of the polymer structures including linear and branched." This argument is not persuasive because applicant has not produced evidence showing the criticality of the claimed narrower range within .9-2. Nor has applicant argued that said range is in fact critical to the invention such that Fukata would not have had possession of such knowledge. Moreover, .9-2 could not cover "almost all possible structures" because Fukata teaches that values above 2, as hi as 3, may be used. Fukata specifically narrows the range to values below 2 as a preferred embodiment (col. 4, lines 9-11). The examiner also notes that Fukata's lower limit of .9 is extremely close to applicant's lower limit of 1.05.

Art Unit: 1771

Moreover, applicant proffers a chart showing a direct relationship between melt flow values and non-Newtonian coefficients. Figure 4 shows that melt flow rates between approximately 10 and 2000 poise result in applicant's narrower range of non-Newtonian coefficients. Harwood teaches melt viscosities within this range (col. 4, lines 16-55). Auerbach also teaches a melt viscosity within this range (p. 4, line 50). Therefore, according to applicant's evidence, both Harwood and Auerbach further refine and limit Fukata's range to a narrower range of about 1 to 1.3.

Applicant argues that Harwood teaches the addition of another polymer mixed with the PAS. This argument is not persuasive because applicant's claims do not preclude the use of a small amount of other materials mixed with PAS. The examiner also notes that Harwood teaches as little as 1% of this additional material (col. 5, lines 43-44).

Applicant argues that Auerbach mixes PAS with a small amount of other polymers. This argument is not persuasive because applicant's claims do not preclude the use of a small amount of other materials mixed with PAS. The examiner notes that Auerbach only teaches the addition of 0.1% additive material (p. 7, lines 27-28).

Applicant argues that with respect to claim 18, Harwood is silent regarding any method for introducing a cross-linking structure into PPS polymers. This argument is not commensurate in scope with the claims because claim 18 does not require such a limitation. The examiner notes that Harwood specifically teaches using cross-linked PAS (col. 4, lines 5-35).

Art Unit: 1771

6. Claims 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292) or Auerbach (EP 709499) each in view of Fukata (4454189) and Senga (EP 353717), as set forth in the previous action.

Applicant argues that Senga does not teach applicant's claimed ratio. As set forth in the previous response, Senga teaches a common endpoint with applicant's claimed ratio.

With respect to claim 8, applicant argues that none of the references teach applicant's claimed cross-linking method. However, both primary references do teach cross-linking. Therefore, it is the examiner's position that the webs created by the combination set forth above are identical to or only slightly different than the webs prepared by the method of applicant. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious variant from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983).

7. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292) or Auerbach (EP 709499) each in view of Fukata (4454189),

Art Unit: 1771

Senga (EP 353717), and either Yu (5266674), Stoner et al (5079079), or Ramsey (4923971), as set forth in the previous action.

Applicant's traversal of this rejection rests on the arguments set forth above. The rejections are maintained from the last action.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Pratt whose telephone number is 703-305-6559. The examiner can normally be reached on Monday - Friday from 7 am to 4 pm.

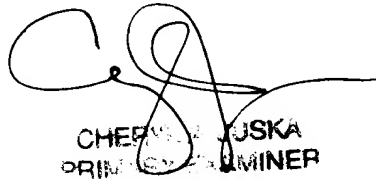
If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the

Art Unit: 1771

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher C. Pratt
March 17, 2003



CHERYL J. JASKA
PRINCIPAL EXAMINER